

Claims

1. A hypoid gear device provided with a backlash eliminating unit for eliminating a backlash between a driven wheel and a driving pinion
5 meshed with the driven wheel, said backlash eliminating unit comprising a driven pinion mounted on a same shaft as that of the driving pinion and meshed with the driven wheel, and an elastic member urging the driven pinion in a direction reverse to the driving pinion on the same shaft.
- 10 2. A hypoid gear device provided with a backlash eliminating unit for eliminating a backlash between a driven wheel and a driving pinion meshed with the driven wheel, said backlash eliminating unit comprising a driven wheel composed of a plurality of ring members divided in a radial direction thereof, and an elastic member twisting the
15 plurality of rings in directions reverse to each other.
3. A hypoid gear device provided with a backlash eliminating unit for eliminating a backlash between a driven wheel and a driving pinion meshed with the driven wheel, said backlash eliminating unit comprising a stationary gear rotating integrally with the driven wheel, a
20 gear train transmitting a rotation of s shaft of the driving pinion to the stationary gear in a direction reverse to a rotating direction of the driven wheel, and a friction clutch arranged in a power transmission mechanism transmitting a driving power of a shaft of the driving pinion to the driven wheel through the gear train.
- 25 4. A hypoid gear device provided with a backlash eliminating unit for eliminating a backlash between a driven wheel and a driving pinion

meshed with the driven wheel, said backlash eliminating unit comprising a driven pinion arranged to be meshed with the driven wheel, a gear train reversely transmitting a rotation of a shaft of the driving pinion to the driven pinion, and a friction clutch arranged in a power transmission mechanism transmitting a driving power of the shaft of the driving pinion to the driven wheel through the gear train.

5 5. A hypoid gear device provided with a backlash eliminating unit for eliminating a backlash between a driven wheel and a driving pinion meshed with the driven wheel, said driven wheel being supported to be rotatable with a shaft thereof and to be slidable thereon, and said
10 backlash eliminating unit comprising an elastic member elastically deformable in an axial direction of the driven wheel to eliminate an overload as well as backlash.

6. The hypoid gear device according to claim 5, wherein the elastic
15 member is a spring.

7. The hypoid gear device according to claim 5 or 6, wherein the driven wheel is mounted on the shaft thereof through a spline mechanism.

8. The hypoid gear device according any one of claims 1 to 7 wherein
20 the driven wheel is mounted to a work table.

9. The hypoid gear device according to any one of claims 1 to 8, wherein a transmission of rotation of the driven wheel to the driving pinion is prohibited.